

(No Model.)

F. O. FARWELL.
FRONT GRATE.

No. 573,816.

Patented Dec. 22, 1896.

Fig. 1.

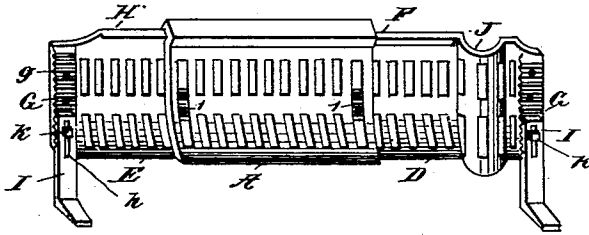


Fig. 5.

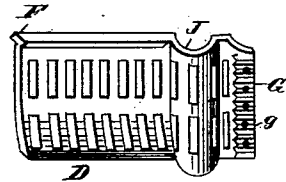


Fig. 2.

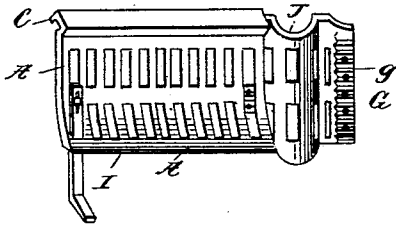


Fig. 3.

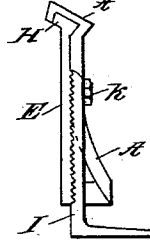


Fig. 4.

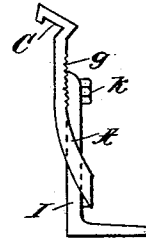
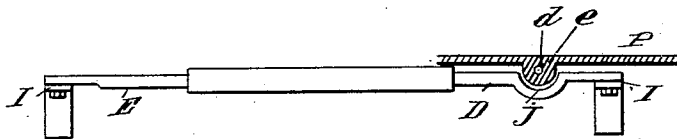


Fig. 6.



WITNESSES

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FAY O. FARWELL, OF DUBUQUE, IOWA, ASSIGNOR OF ONE-HALF TO THE
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FRONT GRATE.

SPECIFICATION forming part of Letters Patent No. 573,816, dated December 22, 1896.

Application filed October 25, 1895. Serial No. 566,919. (No model.)

To all whom it may concern:

Be it known that I, FAY O. FARWELL, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Front Grates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to replace old and burned-out front grates for cook-stoves of different make and size; and it consists, mainly, in a grate proper having adjustable wings or side pieces, and, further, in means for adapting such grates to the irregularities of the inside of such stoves and also adapting the grate to be firmly held in the stove at the proper height.

In carrying out the details of my invention I shall refer to certain drawings, which form a part hereof, and in which—

Figure 1 is a perspective from the interior of the stove and the grate with the end plates extended and the supporting-legs attached. Fig. 2 is a perspective of the same with the left wing removed and the supporting-leg attached to the left end of the body and the right wings shortened to its utmost limit. Fig. 3 is a left end view of Fig. 1. Fig. 4 is a left end view of Fig. 2. Fig. 5 is a perspective of the right wing removed. Fig. 6 is a top view of Fig. 1 and also shows a section of part of the stove and hinge-lug.

Like letters denote corresponding parts in all of the drawings.

In the drawings, A represents the body or main plate, preferably curved inwardly at the lower edge. The whole plate is perforated or slotted in the ordinary way to admit air to the fire. At the upper edge, above the upper row of perforations, is a dovetail mortise C, (shown in Figs. 3 and 4,) running lengthwise of the main plate, into which the dovetail tenons F and H of the extending wings, presently to be described, slide.

The extending wings D and E are provided at their upper edge with dovetail tenons F and H, adapted to engage with the dovetail mortise C of the main plate A and hold such wings

in position. These wings are also curved to conform to the curve of the main plate A and are slotted similarly to the main plate, except a narrow strip G G at their outer ends. The strips G are corrugated or roughened at *g* for the purpose of engaging with corresponding roughened surfaces on the supporting-legs I, as shown in Fig. 4.

In stoves of certain makes the original front grate is hinged to one side of the front opening of the stove. The usual form of the hinge is one or more lugs *e*, secured to the inner side of the front of the stove and forming a part thereof, and in the lug *e* is fixed a pin *d*. Upon the grate are corresponding holes adapted to slide over this pin *d* and serve as a hinge for the grate, and when the front door of the stove is opened the grate can also be swung out. When the grate burns out or is removed, the lugs *e* still remain in the stove, and to provide for these irregularities I have provided the right wing D with a curved or half-circular portion J.

For the purpose of more firmly sustaining the grate in the stove at the proper height there is provided the supporting-legs I, which are each bent at right angles and slotted in one arm at *h*. The same arm is roughened on the rear side to engage with the corrugations on the strips G of the wings, to which it is secured by the bolt *k*, and by means of the bolt and slot the grate is adjusted in height to adapt it to stoves having different heights of front openings.

In adapting my improved grate to cook-stoves, if the opening in the front of the stove is less than the length of the main plate A, then one or both of the wings are removed and the supporting-legs I are secured to the main plate A at *l l*, as shown at the left in Fig. 2, and as these legs are adjustable the grate is set at whatever height the stove demands, always setting it sufficiently high to have free access to the fire-box beneath the grate. If the fire-box is longer than the main plate A, then one or both of the wings D and E are adjusted by sliding the tenons H and F of the wing into the dovetail B of the main plate and adjusting them to the proper length necessary for the stove or fire-box and at the

same time securing the legs I to the corrugated strips G, as shown in Fig. 1, and adjusting them to the requisite height.

If the stove be one in which are the lugs e, (shown in Fig. 6,) then the wing D is adjusted so as to inclose within the semicircle J the said lugs e, and the remainder of the grate is adjusted as before.

It will be seen that a grate manufactured in the manner I have described can be adapted to neatly fit all kinds of "makes" and sizes of stoves.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A stove having inwardly-extending projections, combined with a front grate having a

curved portion adapted to fit over said projections, and means for vertically adjusting said grate in relation to said projections, substantially as shown. 20

2. A front grate composed of a central body or plate, and wings that are adjustable thereon, one of said wings being provided with a curved portion, combined with a stove having inward projections, and which projections fit in said curved portion in one of the wings, substantially as described. 25

In testimony whereof I affix my signature in the presence of two witnesses.

FAY O. FARWELL.

Witnesses:

M. M. CADY,

FRANK B. HIRD.